

What is claimed is:

1. A burst mode optical receiver, comprising:

5 a differential preamplifying means for detecting a difference between a digital data input signal and a reference signal to thereby generate an output signal;

10 a reference signal generating means, including a multistage amplifying and a storing means, for detecting a peak value of the output signal and comparing the output signal with the reference signal through a multistage amplifying means to thereby generate the reference signal corresponding to the peak value of the output signal, and for storing a peak value of the reference signal and providing the reference signal to the differential preamplifying means and the multistage amplifying means through the storing means.

2. The burst mode optical receiver of claim 1, wherein the differential preamplifying means includes:

20 a current source for compensating an offset of the differential preamplifying means.

3. The burst mode optical receiver of claim 1, wherein the multistage amplifying means includes two or more amplifiers.

4. The burst mode optical receiver of claim 3, wherein the

number of the amplifiers is determined by taking both the gain and a power dissipation of the reference signal generating means into consideration.

1. The number of amplifiers is determined by taking both the gain and a power dissipation of the reference signal generating means into consideration.